



# October: 6-8

Is it a Fruit or Vegetable?



# South Carolina Farm to School Lessons

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## Overview

Welcome to the South Carolina Farm to School October Agriculture Education Lesson! This lesson contains information & hands on activities for teaching grades 6-8 about the *Certified South Carolina Grown Program* & the *differences between fruits & vegetables*.

These lessons are designed to be delivered over a four week period, noting that introduction & activities will be supplemental to existing curriculum.

Estimated Total time: 90-120 minutes

### Teacher Background

#### What is Certified South Carolina Grown Program?



The Certified South Carolina Grown program is a new, exciting cooperative effort among producers, processors, wholesalers, retailers & the South Carolina Department of Agriculture (SCDA) to brand & promote South Carolina products. South Carolina products include a wide variety of fruits & vegetables that will be promoted throughout the Farm to School educational lessons. In order to support the South Carolina Grown program, our primary goal is to educate children on identifying fruits & vegetables with the Certified

South Carolina Grown logo. The Certified South Carolina Grown logo signifies first quality products, grown in South Carolina that meet the U.S. #1 Quality Grade Standards, or higher U.S. Grade Standards, whichever is the accepted USDA industry grade standard for the commodity. One of the main benefits of including this program in the farm to school lessons is that children and their families will be able to easily identify, find & buy South Carolina fruits & vegetables.

Now is the time to look for the Certified South Carolina logo in the supermarket, roadside market, community or state farmers market. For more information about this program visit <http://agriculture.sc.gov>.

### Vocabulary Used in Background Information Sheet (Appendix B)

botanic	having to do with a branch of biology dealing with plant life
cardiovascular	of, relating to, or involving the heart and blood vessels
commodity	a product of agriculture or mining
coronary heart disease	a condition and especially one caused by atherosclerosis that reduces blood flow through the coronary arteries to the heart and typically results in chest pain or heart damage
duty	a tax on imports
fruit	the usually edible reproductive body of a seed plant, especially one having a sweet pulp associated with the seed; a succulent plant part used chiefly in a dessert or sweet course
importer	one who brings (as merchandise) into a place or country from another country
government entity	a government organization that has an identity separate from those of its members
maintenance	support or provision for something
nutrition	the act or process of nourishing or being nourished

<b>ovary</b>	the enlarged rounded usually basal portion of the pistil or gynoecium of an angiospermous plant that bears the ovules and consists of one or more carpels
<b>statistics</b>	a branch of mathematics dealing with the collection, analysis, interpretation, and presentation of masses of numerical data
<b>tariff</b>	a schedule of duties imposed by a government on imported or in some countries exported goods
<b>type 2 diabetes</b>	a common form of diabetes mellitus that develops especially in adults and most often in obese individuals and that is characterized by hyperglycemia resulting from impaired insulin utilization coupled with the body's inability to compensate with increased insulin production
<b>vegetable</b>	a usually herbaceous plant (as the cabbage, bean, or potato) grown for an edible part that is usually eaten as part of a meal



# Lesson Checklist



## F2S Objectives

*At the end of the lesson students will be able to:*

- \* Distinguish the similarities & differences in fruits & vegetables.
- \* Understand how agencies define fruits & vegetables.
- \* Recognize the importance of agribusiness in SC.
- \* Prepare a fruit snack using the Palmetto Pick of the month (apples).



## Materials:

- \* Certified SC Grown Program Logo (Appendix A)
- \* Background Information Sheet (Appendix B)
- \* SC Fruits & Vegetables Sheet (Appendix C)
- \* USDA's National Agricultural Statistics Service (NASS) (Appendix D)
- \* USDA's Center for Nutrition Policy and Promotion (CNPP) (Appendix E)
- \* Apple Fact Sheet (Appendix F)
- \* Power Point Slide (sent electronically)
- \* Apple Seed Video (sent electronically)
- \* Taste testing ingredients/tools: Apples, water, cinnamon, sugar, knives, cutting board and blender
- \* Materials for the gardening journal: notebook, pencil & ruler



## National Health Education Standards

2.8.2	2.8.4	2.8.5	3.8.1	3.8.2
3.8.3	3.8.5	4.8.4	5.8.6	8.8.3
8.8.4				

## SC State Standards

ELA 7-2.2	Analyze information within and across texts to draw conclusions and make inferences.
ELA 7-2.4	Create responses to informational texts through a variety of methods (for example, written works, oral and auditory presentations, discussions, media productions, and the visual and performing arts).
ELA 7-3.1	Use context clues (for example, those that provide an example, a definition, a restatement, or a comparison/contrast) to generate the meanings of unfamiliar and multiple-meaning words.
ELA 7-4.1	Organize written works using prewriting techniques, graphic organizers, and models.
ELA 7-4.2	Create narratives (for example, personal essays or narrative poems) that communicate the significance of an issue of importance and use language appropriate for the purpose and the audience.
ELA 7-4.3	Create multiple-paragraph compositions that include a central idea with supporting details and use appropriate transitions between paragraphs.
ELA 7-4.4	Use grammatical conventions of written Standard American English (SAE), including the reinforcement of conventions previously taught.
ELA 7-4.5	Revise writing to improve clarity, tone, voice, content, and the development of ideas.
ELA 7-4.6	Edit for the correct use of written SAE.
ELA 7-4.7	Spell correctly using Standard American English.
ELA 7-5.3	Create descriptions for use in other modes of written works (for example-narrative, expository, or persuasive).
ELA 7-6.4	Use vocabulary (including Standard American English) that is appropriate for the particular audience or purpose.
ELA 7-6.5	Use appropriate organizational strategies to prepare written works, oral and auditory presentations, and visual presentations.
Math 7-2.1	Understand fractional percentages and percentages greater than one hundred
Math 7-2.3	Compare rational numbers, percentages, and square roots of perfect squares by using the symbols $\leq$ , $\geq$ , $<$ , $>$ , and $=$ .

## Lesson Essential Components

Lessons profile	Page(s)	Yes	No	Notes
Palmetto Pick of the Month	9	★		Tasting activities with apples
Health Education Standards	8-9	★		
SC-Cross Curricular Standards	8-10	★		
SC-F2S Behavioral Goals	8-10	★		
Cooking Activities	9	★		
Tasting Activities	9	★		
Physical Activity			★	
Food Safety	9	★		
School Food Garden	9	★		
Student to Farmer Connections (i.e. field trips, talks)	8-9	★		
Student to Chef Connections			★	
Farm to Cafeteria			★	
Provision of scientific knowledge/rationale	8	★		
Risks and benefits of healthy behaviors			★	
Obstacles, Barriers & Solutions			★	
Family involvement and other supports		★		Family Activity Letter
Set goals and monitor progress			★	
Other hands on activities	8-10	★		Team Activities, Presentations

## Let's Learn!

### Let's buy SC Fresh Produce!

**Estimated Time: 20 mins<sup>1</sup>**

1. Prior to this class, obtain SC fruits & vegetables from a local food store &/or local farmer (tomatoes, peaches, celery, apples, lettuce). Preferably, the store, farmers' market &/ or farm should be near your school and supported by the "Certified South Carolina Grown" promotional program (If you prefer not to purchase SC fruits & vegetables you may use the power point that will be sent electronically with this lesson) .

2. Set out the fruits & vegetables so the students can see them clearly. Use the "**Certified South Carolina Grown**" logo (Appendix A) to indicate that the fruits & vegetables are from South Carolina.

3. Ask students if they are familiar with the "Certified South Carolina Grown" promotional program, which is developed & sponsored by the South Carolina Department of Agriculture. Ask students to speculate on what they think this program is. Give a brief explanation of the services provided by the SCDA & the function of the program. Use the web site address to obtain additional information on the program (<http://agriculture.sc.gov>).

*Note:* Remember, that you can use the Farm to School grant funds to purchase the F&V required for this lesson; or if you prefer not to purchase F&V you may use the power point that will be sent electronically with this lesson. Additionally, if you need assistance identifying places to purchase SC F&V, feel free to contact your regional coordinator.

## Let's Learn!

### A Fruit or Vegetable?<sup>2</sup>

**Estimated Time: 15 mins**

1. Explain to the students that in this lesson they are going to learn how fruits & vegetables are classified as well as their many benefits.

2. Go through Power Point stopping at each slide briefly to ask the class if the picture is a fruit or

vegetable. Have a student tally the number of fruits or vegetables based on class response.

3. Briefly discuss what the class believes is the difference between fruits & vegetables.

4. Read the **Background Information** (Appendix B) to the students or copy & hand-out to students. *Note:* To make this more interactive, have students take turns reading paragraphs of the background information.

## Activity

### Which is it?

**Estimated Time: 20 mins**

1. Hand out the **SC Fruits & Vegetables** (Appendix C) worksheet.

2. Have students write down whether the food listed is a fruit or vegetable in the first column.

3. Separate the class into two groups. Group 1 will receive a copy of the **USDA's National Agricultural Statistics Service (NASS)** sheet (Appendix D) for Fruits & Vegetables. Group 2 will receive a copy of **USDA's Center for Nutrition Policy and Promotion (CNPP)** sheet (Appendix E).

4. Have the students identify how their respective USDA agency categorizes the foods listed on the **SC Fruits & Vegetables** worksheet.

5. Have each group present to the class their findings & then discuss as a class which foods are listed differently & what foods on each list have in common.

## Let's Learn!

### Varying Definitions

**Estimated Time: 5 mins**

1. Explain to students that in this lesson they will have the opportunity to look at other ways to define fruits & vegetables. List other categories that fruits & vegetables can be defined. (color, flavor, plant part, etc).

## Activity

### What's your definition?

**Estimated Time: 20-55 mins (over a week)**

1. Put students in groups or pairs. Assign each group /pair at least two foods (for pairs) or three to four foods (for groups) listed on the **SC Fruits & Vegetables** worksheet.
2. Have students research their foods to decide other categories that can define their foods. Students should have research-based facts to support their defined categories.
2. Have groups look at the health benefits that their foods each have & how that relates to their categories.
3. Have groups locate the areas of SC (this can be by county, region, etc) where their foods are grown.
4. Have each group present their findings to the class in a brief (5 mins) presentation. *Note:* This can be done over a week, giving the children time during class to research & work as a group, completing some group tasks as HW, & finishing by presenting their findings. This could also be done as a longer class activity.
5. After class presentations, use the research to discuss the differences in crops for SC. *Note:* This can be done as a class discussion or as an additional research activity for pairs or groups.
  - Which crop is the SC State Fruit & Vegetable?
  - Which crop is the most grown in SC & in your town or region?
  - Which crop is the least grown in SC & in your town or region?
  - How has the amount of crops produced in SC & in your town or region changed over the last 10, 20, & 30 years? (Refer to the USDA NASS for statistical information as well as internet resources such as [www.agriculture.sc.gov](http://www.agriculture.sc.gov))
  - What are some of the reasons for this change in production?
    1. How has the change in production affected our lifestyle & eating habits?

## ★ Palmetto Pick Activity

### Apples in SC?

**Estimated Time: 20 mins**

Using the **Apple Fact Sheet** (either on Smart Board or copy & hand-out to students), discuss the different varieties of apples.

- Have the students heard of each variety?
- How many varieties have they tried?

In addition, you can play the *Apple Seed* video (1:10 mins) while you prepare apple sauce. Video will be sent electronically & can also be found at <http://www.nourishlife.org/videos/apple-seed/>.

The **Apple Fact Sheet** (Appendix F) lists the different tastes of the varieties of apples. For the taste test activity, consider using different varieties of apples (maybe two or three) so students can taste the difference in the varieties.

1. Make homemade applesauce to reinforce a healthy snack.
  - Have students wash their hands & reinforce that it is important. Show the students that you have washed the apples before beginning.
  - Discuss the taste, texture, & healthy ingredients used in the applesauce.
  - Discuss how this is a simple, easy, & fast alternative for a healthy snack.
  - While preparing the applesauce, discuss briefly the Farm that provided your fresh SC apples. (Regional Coordinators can provide this information.)
  - Remind students that this is a great recipe to do at home with their parents.

### Ingredients:

6 large apples  
3/4 cups of water  
Cinnamon to taste  
Sugar to taste

### Directions:

- Peel, core, & cut apples into chunks (the students could help cut the apples).
- Put water & a few chunks of apples in blender.
- Blend mixture & add remaining apple pieces.
- Add sugar & cinnamon to taste.

**Servings:** 20 oz or 20 - 1 oz servings

**Source:** [http://www.eartwiggles.com/Recipes/Apple\\_kids\\_recipes.html](http://www.eartwiggles.com/Recipes/Apple_kids_recipes.html)

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<sup>1</sup> Adapted from South Carolina Ag in the Classroom Curriculum, SC Farm Bureau Federation.

<sup>2</sup> Adapted from Oklahoma Ag in the Classroom.

## ★ Gardening Activity

### Garden Thoughts

**Estimated Time: 10 mins**

1. Tell the students that as part of the Farm to School Program your school will initiate or revitalize a school garden.
2. You can play the *Garden Based Learning* video (3:04 mins). This video will allow students to view an example of a school garden. This video can also be a starting point to discuss how your students would like to participate in their school garden. Video will be sent electronically & can also be found at <http://vimeo.com/11710904>
3. To conclude this activity, ask your students to begin a gardening journal. They will need one small notebook, a pencil, & a ruler.
4. Suggest to the students to use this journal to chart plant growth (weekly measurement from germination until harvest), write essays, record type of seeds, record weather, draw pictures, add pictures, etc.
  - Encourage your students to expand their ideas when writing in the gardening journal by exploring their feelings & attitudes towards gardening & eating fresh, whole foods, etc. Students can also explore agriculture & sustainability issues.

## ✍ Evaluation

### Formal Assessment:

1. Review **SC Fruits & Vegetables** worksheet & discuss the differences & similarities in classifying fruits & vegetables.
2. Review Garden Journal.

**Informal Assessment:** Observe participation in lesson activities. Complete survey at end of month (survey will be sent electronically).



# Resources



## Appendix A





## Appendix B

### Background Information

#### Fruit or Vegetable?<sup>1</sup>

Confusion over what is a fruit and what is a vegetable is not new. In scientific terms the fruit is the part of the plant that develops from the ovary in the base of the flower and contains the seed of the plant. By that definition, many of the foods we commonly call vegetables are actually fruits, including squash and cucumber. The problem is that vegetable is not a botanical category like fruit. The dictionary definition of vegetable is “a usually herbaceous plant grown for an edible part.” By that definition, all the fruits we eat are also vegetables.

In the late 19th Century, US tariff laws imposed a duty on vegetables but not on fruits. Importers of tomatoes argued that since tomatoes are actually a fruit, they should not be subject to the tax. In 1893 the US Supreme Court settled the matter by declaring the tomato a vegetable, using the popular definition which classifies vegetable by use. Since tomatoes are generally served with dinner and not dessert, the court reasoned, it should be classified as a vegetable. The case is known as *Nix v. Hedden* (149 U.S. 304). While the tomato can be classified botanically as a fruit, it is officially categorized as a vegetable in the United States.

For purposes of counting, the US Department of Agriculture (USDA) classifies certain foods differently. In the national agricultural census, conducted by the USDA's National Agricultural Statistics Service (NASS), watermelons are counted as vegetables. NASS also counts strawberries as vegetables. Apples, pears, cherries, peaches, plums and grapes are counted as fruits. Strawberries are counted as fruits only if they are used in production.

For nutrition purposes, the USDA lists fruits and vegetables the way most people think of them. The USDA's Center for Nutrition Policy and Promotion (CNPP) lists watermelon and strawberries as fruits. Squash, cucumbers and tomatoes are listed as vegetables.

No matter how you categorize them, nutrition experts agree that fruits and vegetables provide nutrients that are vital for health and maintenance of your body. People who eat fruits and vegetables as part of an overall healthy diet are likely to have a reduced risk of diseases such as cardiovascular disease, type 2 diabetes, certain cancers, and coronary heart disease. Vegetables and fruits are also low in calories and high in fiber. Eating them instead of higher calorie food can be helpful in lowering calorie intake and maintaining a healthy weight. Fiber is beneficial in keeping the muscles of the digestive tract strong and removing waste from the body.

To nutrition experts a more important way to categorize fruits and vegetables is by their color. Some possible benefits, by color, are listed below:

**Red**—May help fight some cancers; helps fight colds; helps keep the heart healthy and helps us see at night.

**Orange**—May help fight colds; aids in developing a healthy heart; may help prevent cataracts.

**Yellow**—May help prevent hypertension.

**Green**—May help fight some cancers; helps us see at night.

**Purple and Blue**—May help fight some cancers; may help with memory and maintain urinary tract health.

**White, Tan and Brown**—Promote heart health and reduce cancer risk.

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<sup>1</sup> Adapted from Oklahoma Ag in the Class

## Appendix C

### SC Fruits & Vegetables<sup>1</sup>

Write what you think in the first blank column, then use the charts provided by your teacher to determine how they are categorized by two government agencies.

Food	Hypothesis (F or V?)	USDA - NASS	USDA - CNPP
apple			
asparagus			
beets			
butter beans			
collards			
snap (green beans)			
broccoli			
cabbage			
cantaloupe			
carrot			
corn			
cucumber			
muscadine grape			
blueberry			
onion			
peach			
pepper			
sweet potatoes			
peanuts			
squash			
strawberry			
tomato			
watermelon			

<sup>1</sup> Adapted from Oklahoma Ag in the Class

## Appendix D

**Table 34. Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007						2002	
	Total harvested		Harvested for processing		Harvested for fresh market		total harvested	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
Vegetables harvested for sale (see text) <sup>1</sup>	1,520	28,275	131	3,303	1,480	24,971	1,046	30,362
0.1 to 0.9 acres	275	114	17	5	269	109	138	(D)
1.0 to 4.9 acres	744	1,522	61	82	723	1,441	405	903
5.0 to 14.9 acres	308	2,330	28	85	304	2,245	243	1,992
15.0 to 24.9 acres	54	1,001	6	15	54	986	67	1,215
25.0 to 49.9 acres	68	2,138	4	52	67	2,086	89	3,032
50.0 to 99.9 acres	27	1,886	3	(D)	27	(D)	52	3,438
100.0 to 249.9 acres	28	4,277	6	685	23	3,592	31	4,722
250.0 to 499.9 acres	8	2,704	4	1,480	5	1,224	10	3,294
500.0 to 749.9 acres	1	(D)	-	-	1	(D)	1	(D)
750.0 to 999.9 acres	2	(D)	2	(D)	2	(D)	5	4,259
1,000.0 acres or more	5	9,982	-	-	5	9,982	5	6,808
Asparagus, bearing age (see text)	5	(D)	-	-	5	(D)	13	(D)
Beans, green limas	69	798	5	(D)	65	(D)	58	1,284
Beans, snap	449	1,103	32	136	423	967	277	1,228
Beets	6	(D)	-	-	6	(D)	2	(D)
Broccoli	23	(D)	2	(D)	21	(D)	5	(D)
Brussels sprouts	1	(D)	-	-	1	(D)	-	-
Cabbage, Chinese	13	4	-	-	13	4	3	2
Cabbage, head	72	172	4	2	68	171	38	356
Cantaloupes	346	1,698	-	-	346	1,698	305	1,516
Carrots	4	1	-	-	4	1	1	(D)
Cauliflower	3	1	-	-	3	1	-	-
Collards	125	2,377	6	(D)	122	(D)	90	2,011
Cucumbers and pickles	396	2,035	25	941	378	1,093	267	4,858
0.1 to 0.9 acres	304	71	11	3	296	68	166	42
1.0 to 4.9 acres	67	132	7	16	62	115	49	74
5.0 to 14.9 acres	10	80	-	-	10	80	13	81
15.0 to 24.9 acres	2	(D)	2	(D)	2	(D)	3	54
25.0 to 49.9 acres	2	(D)	2	(D)	1	(D)	16	556
50.0 to 99.9 acres	3	220	-	-	3	220	7	492
100.0 to 249.9 acres	6	762	4	(D)	3	(D)	(NA)	(NA)
250.0 to 499.9 acres	2	(D)	1	(D)	1	(D)	(NA)	(NA)
500.0 acres or more	-	-	-	-	-	-	(NA)	(NA)
Eggplant	34	40	1	(D)	34	(D)	11	123
Escarole/Endive	3	(D)	-	-	3	(D)	-	-
Garlic (see text)	4	5	2	(D)	4	(D)	5	6
Herbs, fresh cut	12	(D)	(X)	(X)	12	(D)	7	(D)
Honeydew melons	7	5	-	-	7	5	-	-
Kale	10	(D)	-	-	10	(D)	13	178
Lettuce, all	16	13	(X)	(X)	16	13	7	38
Lettuce, head	5	8	(X)	(X)	5	8	-	-
Lettuce, leaf	8	4	(X)	(X)	8	4	6	(D)
Lettuce, romaine	3	1	(X)	(X)	3	1	1	(D)
Mustard greens	38	875	3	293	35	581	30	292
Okra	218	144	16	8	213	136	142	176
Onions, dry	13	9	-	-	13	9	12	(D)
Onions, green	30	(D)	2	(D)	28	(D)	13	(D)
Parsley	1	(D)	-	-	1	(D)	-	-
Peas, Chinese (Sugar, Snow)	5	2	-	-	5	2	3	6
Peas, green (excluding southern peas)	90	162	14	52	77	110	48	93
Peas, green southern (cowpeas) - blackeyed, crowder, etc	111	341	6	13	107	328	88	757
Peppers, Bell (excluding pimientos) (see text)	71	497	3	1	68	496	27	441
Peppers, other than Bell (including chile) (see text)	42	13	3	(Z)	39	13	26	79
Potatoes (see text)	226	154	6	2	222	152	77	305
Pumpkins	44	196	1	(D)	44	(D)	27	101
Radishes	5	(D)	2	(D)	3	(D)	1	(D)
Spinach	7	(D)	1	(D)	6	4	2	(D)
Squash, all (see text)	217	1,048	9	204	208	844	112	1,589
0.1 to 0.9 acres	162	43	(NA)	(NA)	151	51	51	14
1.0 to 4.9 acres	38	62	(NA)	(NA)	57	(NA)	32	51

See footnote(s) at end of table.

--continued

**30 SOUTH CAROLINA**

**2007 CENSUS OF AGRICULTURE - STATE DATA**

USDA, National Agricultural Statistics Service

**Table 35. Specified Fruits and Nuts by Acres: 2007 and 2002**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Acres	Farms	Acres
Noncitrus fruit, all (see text) .....	2007 630	17,495	551	14,827	216	2,667
2002 709		(D)	517	14,189	376	(D)
Apples .....	2007 205	566	143	482	84	84
2002 339		2,880	194	901	179	1,979
2007 acres:						
0.1 to 0.9 acres .....	121	41	82	28	42	13
1.0 to 4.9 acres .....	71	133	48	67	39	66
5.0 to 14.9 acres .....	9	80	9	75	3	5
15.0 to 24.9 acres .....	1	(D)	1	(D)	-	-
25.0 to 49.9 acres .....	1	(D)	1	(D)	-	-
50.0 to 99.9 acres .....	-	-	-	-	-	-
100.0 acres or more .....	2	(D)	2	(D)	-	-
2002 acres:						
0.1 to 0.9 acres .....	196	58	107	32	106	26
1.0 to 4.9 acres .....	102	185	57	87	55	98
5.0 to 14.9 acres .....	24	170	19	135	9	34
15.0 to 24.9 acres .....	5	104	5	83	3	21
25.0 to 49.9 acres .....	3	125	3	125	-	-
50.0 to 99.9 acres .....	-	-	-	-	-	-
100.0 acres or more .....	9	2,239	3	439	6	1,800
Apricots .....	2007 9	3	5	(D)	5	(D)
2002 14		2	3	(Z)	11	2
Cherries, sweet .....	2007 26	11	19	8	12	3
2002 9		(D)	4	(D)	5	1
Cherries, tart .....	2007 31	12	23	10	10	2
2002 10		1	1	(D)	9	(D)
Figs .....	2007 74	22	64	20	14	2
2002 25		8	13	3	12	5
Grapes .....	2007 258	463	218	387	72	77
2002 289		577	198	368	129	210
Kiwifruit .....	2007 6	11	5	(D)	1	(D)
2002 8		10	5	(D)	3	(D)
Nectarines .....	2007 32	33	17	31	16	3
2002 24		23	9	16	18	7
Peaches, all (see text) .....	2007 283	16,160	241	13,706	101	2,454
2002 380		15,069	248	12,747	207	2,321
2007 acres:						
0.1 to 0.9 acres .....	85	24	62	17	26	7
1.0 to 4.9 acres .....	87	155	74	123	23	33
5.0 to 14.9 acres .....	38	325	32	272	16	53
15.0 to 24.9 acres .....	23	424	23	383	8	41
25.0 to 49.9 acres .....	16	603	16	572	7	32
50.0 to 99.9 acres .....	15	1,063	15	941	5	122
100.0 acres or more .....	19	13,567	19	11,400	16	2,167
100.0 to 249.9 acres .....	7	976	7	830	6	146
250.0 to 499.9 acres .....	2	(D)	2	(D)	1	(D)
500.0 to 749.9 acres .....	3	1,701	3	1,362	3	340
750.0 to 999.9 acres .....	1	(D)	1	(D)	1	(D)
1,000.0 acres or more .....	6	(D)	6	7,810	5	(D)
2002 acres:						
0.1 to 0.9 acres .....	183	45	84	20	107	25
1.0 to 4.9 acres .....	66	133	41	81	34	52
5.0 to 14.9 acres .....	50	401	45	324	17	77
15.0 to 24.9 acres .....	20	350	18	239	13	111
25.0 to 49.9 acres .....	10	377	9	312	5	65
50.0 to 99.9 acres .....	24	1,621	24	1,539	12	82
100.0 acres or more .....	27	12,142	27	10,233	19	1,908
100.0 to 249.9 acres .....	13	1,960	13	1,737	8	223
250.0 to 499.9 acres .....	7	2,502	7	1,982	5	520
500.0 to 749.9 acres .....	2	(D)	2	(D)	2	(D)
750.0 to 999.9 acres .....	2	(D)	2	(D)	2	(D)
1,000.0 acres or more .....	3	4,570	3	(D)	2	(D)
Pears, all .....	2007 144	92	109	67	46	25
2002 191		117	106	73	101	43
Persimmons .....	2007 29	16	20	12	13	4
2002 16		28	6	2	11	27
Plums and prunes .....	2007 87	89	65	56	29	13
2002 150		113	76	70	89	43
Other noncitrus fruit (see text) .....	2007 33	37	30	(D)	3	(D)
2002 -		-	-	-	-	-
Citrus fruit, all .....	2007 4	6	2	(D)	2	(D)
2002 -		-	-	-	-	-
Other citrus fruit (see text) .....	2007 4	6	2	(D)	2	(D)
2002 -		-	-	-	-	-
Nuts, all (see text) .....	2007 660	4,683	547	3,855	187	829
2002 (NA)		(NA)	(NA)	(NA)	(NA)	(NA)
Almonds .....	2007 4	(D)	2	(D)	2	(D)
2002 2		(D)	-	-	2	(D)
Chestnuts (see text) .....	2007 22	21	13	(D)	10	(D)
2002 (NA)		(NA)	(NA)	(NA)	(NA)	(NA)
Hazelnuts (Filberts) .....	2007 5	(D)	1	(D)	4	(D)
2002 2		(D)	-	-	2	(D)

--continued

## Appendix E

### USDA - CNPP<sup>1</sup>

#### Vegetables

Dark green vegetables	Red & orange vegetables	Beans and peas*	Starchy vegetables	Other vegetables
bok choy	acorn squash	black beans	cassava	artichokes
broccoli	butternut squash	black-eyed peas (mature, dry)	corn	asparagus
collard greens	carrots	garbanzo beans (chickpeas)	fresh cowpeas, field	avocado
dark green leafy lettuce	hubbard squash	kidney beans	peas, or black-eyed peas (not dry)	bean sprouts
kale	pumpkin	lentils	green bananas	beets
mesclun	red peppers	navy beans	green peas	Brussels sprouts
mustard greens	sweet potatoes	pinto beans	green lima beans	cabbage
romaine lettuce	tomatoes	soy beans	plantains	cauliflower
spinach	tomato juice	split peas	potatoes	celery
turnip greens		white beans	taro	cucumbers
watercress			water chestnuts	eggplant
				green beans
				green peppers
				iceberg (head) lettuce
				mushrooms
				okra
				onions
				parsnips
				turnips
				wax beans
				zucchini

#### Fruits

Apples	Cherries	Nectarines	<i>100% Fruit juice:</i>
Apricots	Grapefruit	Oranges	orange
Bananas	Grapes	Peaches	apple
<i>Berries:</i>	Kiwi fruit	Pears	grape
strawberries	Lemons	Papaya	grapefruit
blueberries	Limes	Pineapple	
raspberries	Mangoes	Plums	<i>Mixed fruits:</i>
		Prunes	fruit cocktail
		Raisins	
		Tangerines	
<i>Melons:</i>			
cantaloupe			
honeydew			
watermelon			

<sup>1</sup> From ChooseMyPlate.gov

## Appendix F

### Apple Fact Sheet<sup>1</sup>

#### Apple Varieties Recommended for Home Use in the Different Zones of South Carolina

Variety <sup>1</sup>	Area <sup>2</sup>	Characteristics <sup>3</sup>	Pollinati on Code <sup>4</sup>
Anna	CP	Excellent-shape fruit with blush of red; ripens mid-June to early July; spur-type.	A
Dorsett Golden	CP	Yellow apple of good quality; ripens mid-June to early July; spur-type.	A
Jerseym ac	M, P, SR	Very early red apple of excellent quality; good for fresh eating, sauce and pies; ripens in July; non-spur.	B
Ginger Gold	M, P, SR	Very early crisp yellow apple of excellent quality; good for fresh eating, sauce and pies; ripens late July to early August; non-spur. Susceptible to fireblight.	B
Gala	M, P, SR	Excellent quality apple; good for fresh eating or salads; ripens in early August; non-spur.	B
Priscilla	M, P, SR	Red skin color; crisp flesh; mildly sub-acid; excellent dessert quality; ripens late July to early August; non-spur.	C
Mollie's Delicious	M, P, SR	A versatile apple; good for fresh eating, pies and sauce; susceptible to fire blight; ripens in late July; non-spur.	B
Ozark Gold	M, P, SR	Maturess late July to early August; yellow, russet-free apple of excellent quality; non-spur.	C
Red Delicious	All	Early fall variety ripening in late August; large, firm, crisp; sweet; good for fresh eating or salads; non-spur and spur strains available.	B
Golden Delicious	All	Early fall variety ripening in late August; large, firm, crisp; sweet; good for fresh eating or salads; non-spur and spur strains available.	C
Jonagold	M, P, SR	Ripens early September; very large, yellow apple with red blush; very high quality; sweet, juicy apple.	C
Fuji	M, P, SR	Fall variety ripening in early October; does not color well, but quality is superb; good for cooking, eating and baking; non-spur strains available.	B
Mutsu	M, P, SR	Ripens early October; yellow apple of exceptional quality; crisp and juicy; slightly tart; all-purpose.	B
Rome Beauty	M, P	Ripens early October; red apple primarily grown for baking; spur and non-spur.	C

Stayman	M, P	Ripens early October; rusty red finish; superb quality, tart, all-purpose apple; fruit-cracking a problem when dry period is followed by rainy period.	C
Arkansas Black	M, P	Fall variety ripening in October; very dark and red and very firm; great keeping; tart, juicy; good cooking, eating and baking; non-spur and spur strains available.	C
Yates	All	Late fall variety ripening in October; small, dark red; juicy; mellow, sub-acid; best keeper; non-spur.	B
Granny Smith	All	Matures in late September to early October; yellow-green apple of excellent quality; good all-purpose variety; non-spur and spur strains available; susceptible to fire blight.	B
<sup>1</sup> Listed in order of ripening. <sup>2</sup> Major land resource areas of South Carolina: M-Mountain; P-Piedmont; SR-Sandhills and Ridge; CP-Coastal Plain. <sup>3</sup> Ripening dates for all cultivars except Anna and Dorsett Golden are based on averages from Clemson, South Carolina. Ripening dates for Anna and Dorsett Golden are based on averages from Monticello, Florida. <sup>4</sup> Varieties followed by a common letter bloom at about the same time. Since most apple varieties are self-unfruitful (require pollen from another variety to set fruit), plant two or more varieties that have the same letter so fruit set will occur. Stayman, Mutsu and Jonagold have sterile pollen and should not be used as pollen sources for other varieties; therefore, plant at least two other varieties with any of these varieties.			

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<sup>1</sup> Excerpted from Clemson Extension ([http://www.clemson.edu/extension/hgic/plants/vegetables/tree\\_fruits\\_nuts/hgic1350.html](http://www.clemson.edu/extension/hgic/plants/vegetables/tree_fruits_nuts/hgic1350.html))